

## **Abstract**

The present invention provides an image acquisition and viewing system that employs a fish-eye lens and an imager, such as, a CCD array, to obtain a wide angle image, e.g., an image of a hemispherical field of view. The system of the invention further includes a primary display for displaying the image, and a secondary display for presenting a perspective-corrected view of a selected portion of the image. A processor effects correction of a selected portion of the image for distortions introduced by the fish-eye lens by utilizing methods according to the teachings of the invention. The processor further effects the display of the image and its perspective-corrected portion thereof on the primary and the secondary displays, respectively. Moreover, the processor effects the display of a graphical object on the first display to delineate the portion that is presented on the secondary display. This allows a viewer to view simultaneously the image and the perspective-corrected portion, thereby glean information regarding the context of the perspective-corrected portion within the entire image while viewing it.

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